Ethan Gates

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SUMMARY

Computer Science graduate with hands-on experience in AI/ML, full-stack development, and data-intensive applications. Passionate about building intelligent, scalable tools that solve real-world problems.

EDUCATION

Bachelor's degree in Computer Science, Western Governors University
Completed: Feb 2025

CERTIFICATIONS

- ITIL 4 Foundations - November 2023
- Linux Essentials - January 2025

TECHNICAL SKILLS

- Programming languages: Python, Java, C#, JavaScript, SQL
- Tools: Visual Studio Code, PyCharm, Git/GitHub, MySQL, Microsoft Excel, Word, and Power BI
- Hardware: Experience working with Arduino microcontrollers and Raspberry Pi boards
- Frameworks and Libraries: React, Spring Boot, NumPy, Matplotlib, Pandas, Tensorflow

INDEPENDENT PROJECTS – Hosted on my personal website and GitHub

- **News Bias Analyzer**: Built a full-stack ML web app (FastAPI + Next.js) to detect news bias and fake news, reaching 74.3% bias classification accuracy and 99.99% fake news detection using OpenAI embeddings and DNNs. **[Demo]**
- **ArXiv Dashboard**: Developed an NLP-powered arXiv explorer (FastAPI + React, Google Cloud) with RAG-based Q&A (FAISS + Gemini); cut LLM response latency by 83% through async programming, batching, and vector search optimizations. **[Demo]**
- **Stock Portfolio Analysis Tool**: Built a Python app that dynamically pulls historical stock data from Yahoo Finance, analyzes portfolio performance using Pandas, and visualizes growth trends with Matplotlib. Features include input validation, customizable back testing periods, and metrics like time-weighted return.
- **Book Recommendation Engine**: Created a book recommendation system leveraging OpenAI embeddings on summaries and reviews from a dataset of 45,000 books, with FAISS-powered similarity search. Deployed the project with a Flask backend on Google Cloud, and a React frontend **hosted on GitHub Pages**.

PROFESSIONAL EXPERIENCE

Caregiver, Accra Home Care, Minnesota
09/2022-Present

Developed medication and supply tracking tools in Google Sheets to streamline patient care and daily inventory tasks.

Team Trainer, Chick-Fil-A, Minnesota
05/2021-Present

Conducted onboarding assessments, trained 10+ new hires across multiple roles, and supported performance reviews to improve team readiness and service quality.

EXTRA-CURRICULARS

- UMTYMP: Completed Algebra I & II through UMTYMP, an advanced mathematics program for gifted high school students run by the University of Minnesota.
- National Number Knockout: Won 1st place in the United States in 2017. This math competition tests mental math skills and creative problem-solving abilities.
- Math League: Participated in Math League 2017-2021.